

## LIQUID CRYSTAL DISPLAY CONTROLLER

### ABSTRACT OF THE DISCLOSURE

The present invention provides a liquid crystal display controller device

5 and method which provides for a full and/or partial display with good display quality  
and/or low power consumption based on the scanning period for an active scan line being  
dependent upon a number of reference clock pulses. Some embodiments of the present  
invention include one or more of the following features: keeping the frequency  
substantially constant for different numbers of active scan lines, allowing change of the  
10 frequency due to characteristics of the LCD, displaying gradation with near linear  
effective voltage characteristics, displaying graduation data with lower power, or  
displaying a partial or full screen in a mobile device, for example, a cell phone.

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